

THREE NEW SPECIES OF ARADIDAE FROM MEXICO (HEMIPTERA)

NICHOLAS A. KORMILEV

Research Associate in Entomology, Bernice P. Bishop Museum, Honolulu, Hawaii 96818; mailing address: 84-05 89th Street, Woodhaven, New York 11421.

Abstract.—The author proposes three new species of Aradidae from Mexico: *Aneurus mexicanus*, *Neuroctenus discrepans*, and *Mezira paratropicalis*.

For the privilege of studying the following three new species and certain other Mexican Aradidae, I am sincerely grateful to John A. Chemsak, University of California, Berkeley.

All measurements in this paper were taken with an ocular micrometer, 25 units equal 1 mm. For convenience, the length of the male abdomen was taken from the apex of the scutellum to the tip of the hypopygium; of the female abdomen from the apex of the scutellum to the tip of segment IX. In the ratios given, the first figure represents the length and the second figure represents the width of the part measured.

Subfamily ANEURINAE

Genus *Aneurus* Curtis, 1825

Aneurus mexicanus Kormilev, NEW SPECIES

Figs. 1-3

Male.—Elongate, ovate, shining. *Head:* As long as width across eyes (15:14.5); anterior process conical at base, parallel-sided apically, reaching apex of antennal segment I, genae slightly shorter than clypeus. Antenniferous tubercles short, acute. Eyes large, semiglobose. Postocular tubercles denticulate, reaching lateral borders of eyes. Vertex transversely rugose. Antennae slender, segment I obovate, II fusiform, III subcylindrical, tapering toward base, IV elongate fusiform; relative lengths I-IV, 4.0:3.5:4.5:9.0. Labium reaching line connecting fore borders of eyes. *Pronotum:* Shorter than wide (13:29); lateral margins sinuate, finely crenulate; anterior lobe with 2(1+1) large discal callosities and 2(1+1) smaller lateral callosities; posterior lobe with a transverse band of fine granules. *Scutellum:* Shorter than basal width (13.0:17.5), subtriangular, apex nar-

rowly rounded; mediobasally with longitudinal striations, elsewhere with striations paralleling borders. *Hemelytra*: Reaching middle of tergum VII; corium attaining basal $\frac{1}{4}$ of scutellum. *Abdomen*: Longer than wide (57.0:42.5); lateral borders crenulate, connexiva granulate along lateral borders; sublateral fold on venter extending from segment III onto basal $\frac{1}{2}$ of VI. Paratergites rounded, produced slightly beyond small, rounded hypopygium; latter shorter than wide (2.5:4). Spiracles II, VI, and VII lateral, visible from above; III to V ventral; VIII terminal.

Female.—Similar to male but larger. Paratergites very short, posteriorly rounded and crenulate, reaching midlength of truncate segment IX.

Ratios.—Head, 15.5:15.5. Antennal segments I–IV, 4.5:4.0:5.0:10.0. Pronotum, 14:32. Scutellum, 14.5:20.0. Abdomen, 66:46. Width of tergum VIII, 13.

Total length.—♂, 3.96; ♀, 4.44 mm. Width of pronotum: ♂, 1.16; ♀, 1.28 mm. Width of abdomen: ♂, 1.70; ♀, 1.84 mm.

Color.—Red brown; membrane darker.

Holotype.—♂, Mexico, Veracruz, Coscomatepec; 9.VII.1974; J. A. Chemsak, E. and J. Linsley, and J. Powell leg. Deposited in the Agricultural Experiment Station, Berkeley, California.

Allotype.—♀, collected with the holotype; in the same collection.

Paratypes.—4 ♂♂, 3 ♀♀, collected with the holotype; 1 ♀, Mexico, Pueblo, 14 km NE Morelos Cuñada, J. A. Chemsak and E. and J. Linsley leg. In same collection and in collection of the author.

Remarks.—In Picchi's (1977: 267) key to the North and Central American and West Indian species of *Aneuris*, *A. mexicanus* runs to *A. arizonensis* Picchi, 1977, but appears to be more closely related to *A. roseae* Picchi, 1977. From the former it differs by the regularly ovate shape of abdomen and by the shorter hypopygium; from the latter it differs by the shorter hypopygium and by the sublateral fold on venter extending from III to the middle of VI.

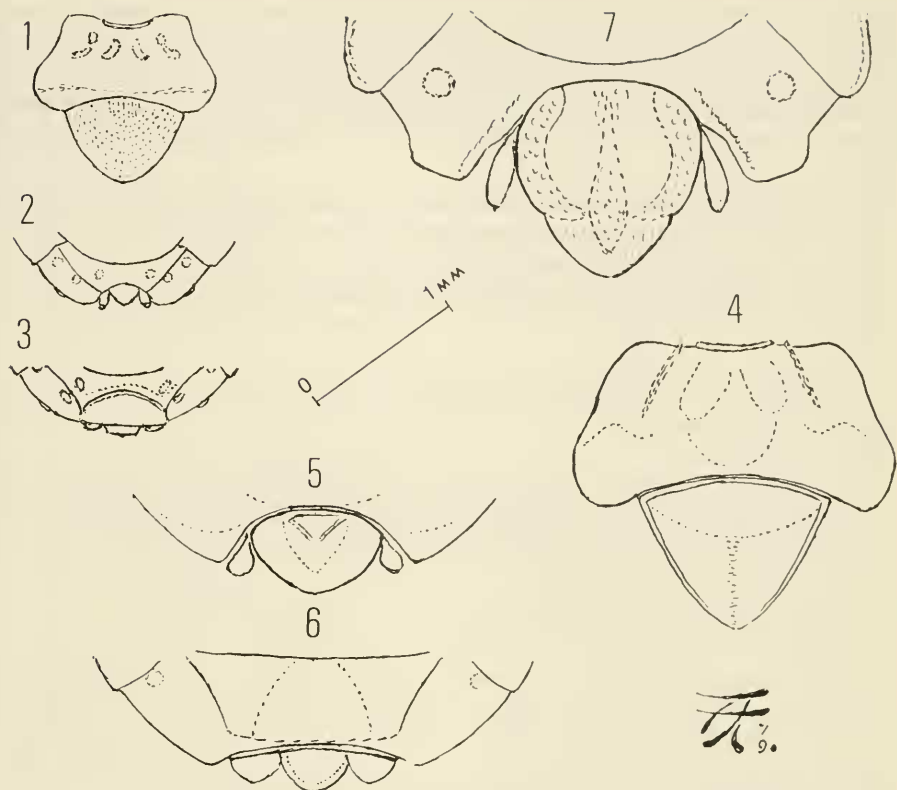
Subfamily MEZIRINAE

Genus *Neuroctenus* Fieber, 1861

Neuroctenus discrepans Kormilev, NEW SPECIES

Figs. 4–6

Male.—Ovate; densely and finely granulate. *Head*: As long as width across eyes (22.5:23.0); anterior process constricted laterally, rounded and excised anteriorly, reaching almost to apex of antennal segment I. Antenniferous tubercles acute, divaricate. Postocular angulation reaching lateral border of eyes; latter moderately large, semiglobose. Vertex elevated, granulate. Antennae slender, less than twice as long as width of head across eyes (40:23); relative length of antennal segments I–IV, 10:10:11:9. Labium reaching basal border of head; labial groove closed posteriorly. *Pronotum*:



Figs. 1-3. *Aneurus mexicanus*. 1, Pronotum and scutellum, ♂. 2, Tip of abdomen from above, ♂. 3, Same, ♀. Figs. 4-6. *Neuroctenus discrepans*. 4, Pronotum and scutellum, ♂. 5, Tip of abdomen from above, ♂. 6, Same, ♀. Fig. 7. *Mezira paratropicalis*, ♂, tip of abdomen from above.

Less than $\frac{1}{2}$ as long as wide (21:50); collar thin, sinuate anteriorly; antero-lateral angles rounded, finely granulate, reaching to collar anteriorly. Lateral margins barely sinuate. Posterior border evenly sinuate. Anterior lobe with 4 (2+2) low, granulate ridges. Posterior lobe sharply granulate. *Scutellum*: Shorter than basal width (23:32). Lateral borders slightly convex, carinate on basal $\frac{3}{4}$. Apex rounded. Disc granulate, with somewhat obliterated median ridge on apical $\frac{3}{5}$. *Hemelytra*: Reaching onto basal part of abdominal segment VII. Corium reaching posterior border of connexival segment II; its basolateral border reflexed, finely granulate; apical angle subrectangular; apical border bisinuate. *Abdomen*: Longer than wide (75:71), ovate. Lateral borders evenly rounded. Connexiva flat, sculptured with fine dense punctures and sparse granules; posterolateral angles barely projecting. Tergum

VII elevated and projecting posteriorly for reception of hypopygium. Paratergites small, clavate, reaching apical $\frac{1}{3}$ of hypopygium; latter shorter than wide (13:20), triangularly depressed mediobasally. *Venter*: With sterna IV to VI lacking transverse carinae or row of granules near base. Spiracles II to VII ventral, remote from borders; VIII sublateral, not visible from above.

Female.—Similar to male but larger and more rounded laterally. Posterior border of sternum VII bisinuate medially. Paratergites rounded, reaching apical $\frac{1}{4}$ of posteriorly rounded segment IX.

Ratios.—Head, 25:25. Antennal segments I–IV, 10.5:10.5:12:8. Pronotum, 22:55. Scutellum, 25:36. Abdomen 95:83. Width of tergum VIII, 26.

Total length.—♂, 5.80; ♀, 6.72 mm. Width of pronotum: ♂, 1.92; ♀, 2.20 mm. Width of abdomen: ♂, 2.84; ♀, 3.32 mm.

Color.—Brown.

Holotype.—♂, Mexico, Sinaloa, 5 mi N Mazatlan, 25.VII.1973; J. A. Chemsak, E. and J. Linsley, and A. E. Michelbacher leg.; at light. Deposited in the Agricultural Experiment Station, Berkeley, California.

Allotype.—♀, Mexico, Sinaloa, 5 mi N Mazatlan, 21.VII.1972, J. and M. Chemsak and A. and M. Michelbacher leg. In same collection.

Remarks.—*Neuroctenus discrepans* at first sight looks more like a species of *Mezira* than of *Neuroctenus*, but the sublateral carinae on the abdominal venter and medially bisinuate apical margin of sternum VII of the female result in its placement in *Neuroctenus*. It is related to *N. ovatus* (Stål, 1862) but is smaller, has the lateral margin of the pronotum barely sinuate, and segment IX of the female rounded posteriorly, not bilobed.

Genus *Mezira* Amyot and Serville, 1843
Mezira paratropicalis Kormilev, NEW SPECIES
Fig. 7

Male.—Elongate ovate, covered with short, curled, rusty hairs. Closely related to *Mezira tropicalis* Kormilev, 1972, but separated therefrom by the following characters: Shorter antenna, in *N. paratropicalis* 1.8× as long as width of head across eyes, in *N. tropicalis* 2.03×; shorter 3rd antennal segment, 1.28× as long as antennal segment II in *N. paratropicalis*, in *N. tropicalis* 1.55×; longer labium, in *N. paratropicalis* produced beyond fore border of prosternum, in *N. tropicalis* reaching only to hind border of labial groove; pronotum shorter and wider; hypopygium longer and narrower, in *N. paratropicalis* 30:30, in *N. tropicalis* 23:32; shape of body hairs, in *N. paratropicalis* short and curled, in *N. paratropicalis* extremely short and straight. Interlobal depression of pronotum relatively deeper than in *N. tropicalis*. Corium with apical angle rounded; its apical margin rounded and raised, not raised in *N. tropicalis*. Paratergites narrower and shorter, reach-

ing slightly past midlength of hypopygium. Spiracles II to VII ventral, remote from lateral border; VIII sublateral, not visible from above.

Ratios.—Head, 31:32. Antennal segments I–IV, 16.0:12.5:16.0:13.0. Pronotum 32:71. Scutellum 25:40. Abdomen 103:92. Hypopygium 30:30.

Total length.—8.00 mm. Width of pronotum 2.84 mm. Width of abdomen 3.68 mm.

Color.—Red brown, in part darker. Membrane brown, whitish at base. Round calloused spots on connexivum and venter yellow.

Holotype.—♂, Mexico, Chiapas, 9 mi E San Cristobal, 30.VII.1957; J. A. Chemsak and B. J. Rannells leg. Deposited in the Agricultural Experiment Station, Berkeley, California.

LITERATURE CITED

- Kormilev, N. A. 1972. Two new species of the American flat bugs (Hemiptera, Aradidae). Bull. South. Calif. Acad. Sci. 71(2): 91–93.
- Picchi, V. D. 1977. A systematic review of the genus *Aneurys* of North and Middle America and the West Indies (Hemiptera: Aradidae). Quaest. Entomol. 13: 255–308.
- Stål, C. 1862. Hemiptera mexicana enumeravit speciesque novas descripsit. Stettin. Entomol. Ztg. 23: 437–439.